

# One in 43,252,003,274,489,856,000

Xenia's Drew Brads takes speedcubing World Record

BY JENNIFER HANAUER LUMPKIN

**I bet there** was

one in your basement in the '80s. A six-colored, six-sided puzzle cube, deceptive in its apparent candor, charming in its manageable size. And if it was like mine, half the stickers had been ripped off and stuck back on, the curled edges of which betrayed my clumsy attempt to beat the system and attain the desired homogeneous effect. In 1974 a Hungarian professor of architecture, Erno Rubik, invented the "game" as a way of instructing his students on the matter of spatial relations, but for him it came to represent the dichotomy of the human condition – an object of art that embodies the juxtaposition of complexity and simplicity.

It took Rubik nearly a month to solve his own puzzle the first time, but in the last 40 years, competitive speedcubing has resulted in solves taking just seconds.

Enter Drew Brads, the 15-year-old Xenia resident who has conquered the cube and gone on to win many competitions in several of the cube's variations, notably tying the World Record for the tetrahedron-shaped Pyraminx with an average time of 2.96 seconds. Yeah, you just counted three-Mississippi, and he just solved a complex mathematical puzzle with his fingertips. How does that kind of mind work?

Drew and his mother, Sarah, invited me in to their home to share their experiences in the speedcubing universe. Aside from their warm smiles and welcoming demeanors, the first thing I noticed was the sound, the clicking of Drew's cube as he continuously solved cubes during our conversation. It wasn't obnoxious by any means. It was actually kind of hypnotic in its rhythmic flip-flip-flip, punctuated with infinitesimal pauses as Drew worked out which way to go next. It was like hearing thinking.

"What's funny is we tune it out so much," laughed Sarah as Drew continued to solve.



Xenia local Drew Brads displays his collection of Rubiks puzzles

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– Speedcuber Drew Brads

Flip-flip-flip.

A few years ago, with a proclivity for problem-solving and inspired by one of his LEGO Robotics mentors, Brads set out to teach himself how to solve cubes.

"I couldn't do it on my own, so I looked it up on the Internet and then it kind of turned out that there's a whole community of these people that do this," Brads said.

Brads learned from videos how to solve and mimicked the individual styles of the speedcubers he looked up to.

"There are very specific finger tricks for turning it faster," Brads explained. "So, when

you first start, you're going to probably use your whole hand, but as you get faster you're going to start using just your fingertips because that way you only need to use one finger at a time to turn the lay-

ers. Everyone has kind of a different style to their finger tricks, and it's hard to see unless you watch solves a lot. Mine's not particularly interesting as far as turning styles go. It's pretty choppy."

Choppy or not, it's downright mesmerizing. At times you can't even see his fingers, they're moving so fast. And half the time, Brads isn't even looking at the cube.

"Once you've done several thousand

solves, it gets to the point where it's just completely automatic," Brads said. "Like when you start to get really good at a sport, you aren't thinking about it anymore, you're just seeing patterns and what's happening and reacting as fast as possible. So that's the exact same thing that's happening here. And the reason you see me turning it without looking at it is that I have lots and lots of sequences and moves that are memorized, so it's just in my muscle memory, so I can just [flip-flip-flip] turn it really fast without even thinking about it. So that's why I don't need to look at it. I just know what's going to happen."

"It's a stress reliever for me," Brads continued. "If I'm just, like, tired, I go solve cubes for an hour, and then I'll feel better."

Another benefit of speedcubing is the opportunity to interact with the international community by way of both technology and competitions.

"The age we live in is so cool," Sarah Brads said. "You can cube via Skype with somebody across the world."

"I talk to people all over pretty often," Drew said. "I talk to people from Denmark and Finland, Australia sometimes. Especially at the national and world championships, there are people from all over the place."

When I inquired about the math to all of this, Drew informed me that there are 43,252,003,274,489,856,000 possible permutations for a 3X3 cube.

"Hey, and one of those is solved, so you have a one in 43 quintillion chance of solving it by accident," Brads said, smiling amusedly.

Not giving me a lot of hope there, Drew. So, what comes next?

"Next year there are Nationals and World Championships," Drew said. "I'd really like to

get to World Championships, but it's in Brazil, so I'm going to have to figure out some sponsors if I want to get there. ... As far as cubing goes, I've achieved many of my long-term goals, and I just want to keep having fun and working at the competitions. Outside of cubing, I kind of want to get better at basketball. I want to put some more work into that as I start high school."

"It's important to me that he's just a normal kid," Sarah said. "He's working at a camp for kids with disabilities next summer. Church, Sunday school, etc. He's a very well-rounded young man."

Rubik once said, "If you are curious, you'll find the puzzles around you. If you are determined, you will solve them." I wonder where Drew Brads' curiosity and determination will take him next?

To see some of Drew's astonishingly speedy cube solving or to watch a few tutorials for your own speedcubing advancement, visit [youtube.com/user/XTownCuber](http://youtube.com/user/XTownCuber).



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